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BERGGREN

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Via facsimile and mail!

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REPLY TO WRITTEN OPINION
INTERNATIONAL PATENT APPLICATION PCT/FI2003/000807
APPLICANT: MERIDEA FINANCIAL SOFTWARE OY

Dear Sirs,

On account of the Written Opinion issued on23 July 2004 we submit the following.

The cited prior art publications aim at a kind of "macro programming" at a user's portable terminal. In other words, they aim at simplifying the act of commencing a series of actions performed by the portable terminal, which actions otherwise would require the user to give a number of input commands. As a difference, the present invention aims at automatizing the use of a service, which does not include only operations of the terminal but involves communication between the terminal and a distant server, as well as operations performed by said server.

Of the cited prior art we may state that D1 is a typical example of simplifying the series of input commands that a user would otherwise need to make in order to input, send, receive and read text messages.

In D2 (WO 01/52508) the starting point is the prior known speed-dialing of telephone numbers. The problem according to the publication is that a mere storing of speed-dial numbers does not permit more extensive programming capabilities. With regard to more versatile functions, the author refers only to such functions where the input and control take place by pressing sequential queues of numbers and/or letters. As a solution is presented, that a telephone should make it possible for the user to store longer alphanumerical sequences in such a way that later the user would not each time when he makes a phonecall have to press the same alphanumerical sequence anew. The stored sequency is transmitted to the provider of the

service by pressing a separate SEND key (page 12, lines 1-5). Making a phonecall with the telephone itself, i.e. sending a contact request to a telehpone network in such a way that the contact request conveys to the network the number with which communication is wanted to be established, is known per se and all telephones are cabable of doing that.

D3 (US 5,832,074) relates to programming of shortcuts into the telephone and in this respect it is very similar to D1.(WO 01/52508). The stored sequencies do also here consist of presses made by the user.

D5 (EP 1 233 599) relates generally to programming of shortcuts and their use in a portable electronic device. It states expressly that giving a shortcut command can give the user an access to a certain application or, alternatively, directly to a certain content.

D4 (DE 101 17 654) introduces the concept of the "macrocommand"" (German: Makrobefehl), liming also here, however, to replacement of the command series given with the aid of a keypad.

The patent claims have now been amended so that in all the independent claims the latter part of the characterizing part also calls for the operations performed at the server.

We herewith propose most respectfully that the present patent application be accepted in its amended form.

BERGGREN OY AB

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ENCL.   An amended set of claims

Claims

1. A method for providing a user with a service from a server (105, 1206) coupled to a communications network (103, 104, 1201, 1203), **characterized** in that it comprises the steps of:

5 - storing (427) a definition (302) of automatically using the service into a mobile terminal (102, 1203) of the user,
- reprogramming said mobile terminal (102, 1203) to associate a certain input command given through a user interface of said mobile terminal with starting the use of the service, and
10 - as a response to receiving (702, 801, 901, 1001) said certain input command after the step of reprogramming said mobile terminal has been accomplished, commencing use of the service according to said definition;
wherein the use of the service comprises communicating information (112, 113, 114, 121, 122, 123) between said mobile terminal (102, 1203) and the server (105, 15 1206) through the communications network (103, 104, 1201, 1203) as well as operations made at the server (105, 1206).

2. A method according to claim 1, **characterized** in that before the step of storing (427) a definition (302) of automatically using the service, it comprises a step of composing (301) a customized definition (302) of the service adapted to the 20 needs of the particular user.

3. A method according to claim 2, **characterized** in that said step of composing (301) a customized definition (302) of the service involves tracking certain operations through which the user uses the service manually and converting observations made during such tracking into a definition of automatically using the 25 service.

4. A method according to claim 3, **characterized** in that it comprises:

- observing the context in which the user made a certain physical operation,
- taking said context into account in deducing what was the function to be executed as a response to said certain physical operation and
30 - storing into said customized definition of the service a command to execute said function instead of just storing a command that would directly correspond to repeating said certain physical operation.

5.   A method according to claim 2, **characterized** in that:

- said step of composing (301) a customized definition (302) of the service is performed in a device that is other than the mobile terminal of the user, and

- between said steps of composing a customized definition of the service and storing a definition of automatically using the service, the method comprises a step of downloading a composed customized definition (302) of the service into the mobile terminal of the user.

6.   A method according to claim 5, **characterized** in that said step of composing (301) a customized definition (302) of the service is performed in a service definition server (1205) of the motion of the user and comprises the substeps of:

- providing a browser connection between a terminal (1204) of the user and said service definition server (1205),

- executing a service definition application in said service definition server (1205), and

- directing the execution of said service definition application according to commands given by the user through said browser connection.

7.   A method according to claim 5, **characterized** in that said step of composing a customized definition of the service is performed in a service provider's server (105) of the motion of said service provider and comprises the substeps of:

- providing a control connection between a control terminal (106) and said service provider's server (105),

- executing a service definition application in said service provider's server (105), and

- directing the execution of said service definition application according to commands given by an operator through said control connection.

8.   A method according to claim 2, **characterized** in that the step of composing (301) a customized definition (302) of the service produces a definition (302) of the service in the form of device-independent execution language script.

9.   A method according to claim 1, **characterized** in that the step of reprogramming said mobile terminal (102, 1203) involves programming a programmable user interface command interpretation unit (211) to interprete a certain single command given through said user interface as a starting command for the use of said service.

10. A method according to claim 9, **characterized** in that said certain single command is a press of a certain key for the duration of a certain time.

11. A method according to claim 1, **characterized** in that the step of commencing use of the service comprises the substeps of:

5   - reading an execution language script (302) from a memory (212) of the mobile terminal,
       - parsing (303, 703, 802, 902) said execution language script (302), thus converting said execution language script (302) into a set of executable instructions (304) for a processor (201) to execute, and
10   - commencing execution (305, 704, 803, 903) of said set of executable instructions (304) in a processor (201) of the mobile terminal.

12. A method according to claim 11, **characterized** in that after the step of commencing execution (305, 704, 803, 903) of said set of executable instructions (304, 1101) it comprises the steps of:

15   - executing said set of executable instructions until a certain branching point (1103, 1104),
       - prompting the user for a selection command, and depending on which selection command is thereafter received from the user:
            - as a response to a first alternative selection command received from the user,
20   continuing execution of said set of executable instructions (1101) that resulted from parsing said execution language script, and
            - as a response to a second alternative selection command received from the user, commencing execution of a client program (1111, 1121) that is external to said set of executable instructions (1101) that resulted from parsing said
25   execution language script.

13. A method according to claim 12, **characterized** in that said first alternative selection command is the same as said certain input command that originally caused commencing the use of the service according to said definition.

14. A method according to claim 12, **characterized** in that in a case where a
30   second alternative selection command was received from the user, said client program (1121) is executed until an end (1123), after which execution of said set of executable instructions (1101) that resulted from parsing said execution language script is resumed from said branching point (1104).

15. A method according to claim 12, **characterized** in that in a case where a second alternative selection command was received from the user, said client program (1111) is executed until an end (1113, 1114, 1115), after which execution of said set of executable instructions (1101) that resulted from parsing said execution language script is continued from a return point (1105, 1106, 1107) that is later in said set of executable instructions (1101) than said braching point (1103).

16. A method according to any of claims 14 or 15, **characterized** in that:

- executing said client program (1111, 1121) comprises obtaining a parameter value, and
- returning from the execution of said client program (1111, 1121) to the execution of said set of executable instructions (1101) that resulted from parsing said execution language script involves bringing said parameter value as input information to the execution of said set of executable instructions (1101).

17. A method according to claim 12, **characterized** in that at the step of prompting the user for a selection command there exist more than two alternative selection commands, so that depending on which selection command is thereafter received from the user, a way of continuing execution from the branching point is selected from more than two alternatives.

18. A method according to claim 1, **characterized** in that the use of the service according to said definition comprises the substeps of:

- receiving online a piece of authentication information (1004) from the user, and
- using said piece of authentication information to access (1005) an electronic safe store in the mobile terminal.

19. A method according to claim 18, **characterized** in that it comprises the steps of:

- after a first occasion of receiving online a piece of authentication information (1004) from the user, acknowledging said definition of automatically using the service as a trusted representative of the user, and
- after a first occasion of using said piece of authentication information to access (1005) an electronic safe store in the mobile terminal, utilizing the acknowledged status as a trusted representative of the user by accessing again (1008, 1009, 1012, 1013, 1016, 1017) said electronic safe store in the mobile terminal without having to receive again any authentication information from the user.

20. A method according to claim 19, **characterized** in that the step of acknowledging said definition of automatically using the service as a trusted representative of the user involves awarding said definition of automatically using the service with a status of a trusted representative of the user also for a number of
5   subsequent times of automatically using the service.

21. A method according to claim 19, **characterized** in that the step of acknowledging said definition of automatically using the service as a trusted representative of the user involves awarding said definition of automatically using the service with a status of a trusted representative of the user only for an ongoing
10   occasion of automatically using the service.

22. A method according to claim 1, **characterized** in that the step of storing (427) a definition (302) of automatically using the service into a mobile terminal of the user involves storing said definition into an electronic safe store in the mobile terminal.

15   23. A method according to claim 1, **characterized** in that said communication of information between said mobile terminal (102, 1203) and the server (105, 1206) through the communications network comprises at least one of the following:

- informational usage of a service, including communicating from the server (105, 1206) to said mobile terminal (102, 1203) a character string that illustrates a current
20   state of a financial asset of the user,
- analytical usage of a service, including communicating from the server (105, 1206) to said mobile terminal (102, 1203) analyzed information about financial assets of the user,
- advisory usage of a service, including communicating from the server (105, 1206)
25   to said mobile terminal (102, 1203) information about suggested financial actions for the user, and
- transactional usage of a service, including communicating from said mobile terminal (102, 1203) to the server (105, 1206) information about financial transactions that the user wants to accomplish.

30   24. A mobile terminal (102, 1203) for providing a user with a service from a server (105, 1206) coupled to a communications network (103, 104, 1201, 1202), **characterized** in that it comprises:

- a memory (212) for storing a definition of automatically using the service,

- reprogrammable user interface means (203, 204, 211) for reprogramming said mobile terminal to associate a certain input command given through a user interface (203) of said mobile terminal (102, 1203) with starting the use of the service,

- processor means (201) adapted to respond to receiving said certain input command

5   after reprogramming said mobile terminal has been accomplished by commencing use of the service according to said definition, and

- communication means (205, 214) for communicating information between said mobile terminal (102, 1203) and the server (105, 1206) through the communications network (103, 104, 1201, 1202) and for triggering operations performed at the

10   server (105, 1206).

25.   A mobile terminal according to claim 24, **characterized** in that it comprises tracking means (201) adapted to track certain operations through which the user uses the service manually and to convert observations made during such tracking into a definition of automatically using the service.

15   26.   A mobile terminal according to claim 24, **characterized** in that it comprises parser means (213) adapted to convert a definition (302) of service from the form of device-independent execution language script into the form of processor-executable instructions.

27.   A mobile terminal according to claim 24, **characterized** in that it comprises

20   means for accepting and storing a definition (302) of service in a form of a device-dependent command series previously parsed from the form of device-independent execution language script.

28.   A mobile terminal according to claim 24, **characterized** in that said reprogrammable user interface means (203, 204, 211) are adapted to be

25   reprogrammed to associate the press of a certain pressable key of said mobile terminal with starting the use of the service.

29.   A system for providing a user with a service, comprising:

- a communications network (103, 104, 1201, 1202),

- a service provider's server (1206) coupled to the communications network, and

30   - a user's mobile terminal (1203) coupled to the communications network;

characterized in that it comprises:

- service defining means (1203, 1204, 205) for creating a customized definition of automatically using the service in a way adapted to the needs of the particular user,

- means for storing a created customized definition of automatically using the service into the mobile terminal (1203) of the user,
- means for reprogramming said mobile terminal (1203) to associate a certain input command given through a user interface of said mobile terminal with starting the use of the service, and
- at the mobile terminal (1203), means for responding to receiving said certain input command after said reprogramming has been accomplished by commencing use of the service according to said definition, which use comprises communicating information (112, 113, 114, 121, 122, 123) between said mobile terminal (102, 1203) and the server (105, 1206) through the communications network (103, 104, 1201, 1203) as well as operations made at the server (105, 1206).

30. A system according to claim 29, **characterized** in that said service defining means are located at the user's mobile terminal (1203).

31. A system according to claim 29, **characterized** in that said service defining means are located at a service definition server (1205) coupled to the communications network (1201, 1202).

32. A system according to claim 31, **characterized** in that the service definition server (1205) is adapted to digitally authenticate created customized definitions of automatically using services, and the user's mobile terminal (1203) is adapted to only accept such digitally authenticated definitions of automatically using services for storing.

33. A system according to claim 31, **characterized** in that the user's mobile terminal (1203) is further adapted to indicate the digital authentication when communicating to the service provider's server (1206) during the automatical use of a service, and the service provider's server (1206) is adapted to only accept communication from mobile terminals (1203) that automatically use a service if such communication includes such indicated digital authentication.